wherein said protein is conjugated to at least one molecule of the two or more molecules of the enzyme in (2) and

wherein said protein is not directly conjugated to said carrier.

28. (New) The complex of claim 27, wherein the carrier has an average molecular weight ranging from 5,000 to 500,000 Da as determined by gel filtration chromatography.

29. (New) The complex of claim 27, wherein the carrier has an average molecular weight ranging from 10,000 to 300,000 Da as determined by gel filtration chromatography.

30. (New) The complex of claim 27, wherein the carrier has two or more amino groups.

31. (New) The complex of claim 27, wherein the carrier is selected from the group consisting of

(a) a peptide polymer having two or more basic amino groups and

(b) a polysaccharide having one or more introduced active groups, wherein the active group(s) are selected from the group consisting of an amino group, an aldehyde group and a vinyl group.

32. (New) The complex of Claim 27, wherein the carrier comprises a peptide polymer having two or more amino groups.

33. (New) The complex of Claim 27, wherein the carrier comprises polylysine.

34. (New) The complex of Claim 27, wherein the carrier comprises a polysaccharide comprising one or more aldehyde group(s).

35. (New) The complex of Claim 27, wherein the carrier comprises a polysaccharide comprising one or more amino group(s).

36. (New) The complex of Claim 27, wherein the carrier comprises a polysaccharide comprising one or more vinyl group(s).

37. (New) The complex of Claim 27, wherein the enzyme comprises horse radish peroxidase.

38. (New) The complex of Claim 27, wherein the enzyme comprises alkaline phosphatase.

39. (New) The complex of Claim 27, wherein the enzyme comprises β-galactosidase.

40. (New) The complex of Claim 27, wherein the enzyme comprises glucose oxidase peroxidase.

41. (New) The complex of claim 27, wherein the protein comprises an antigen.

42. (New) The complex of claim 27, wherein the protein comprises an antibody or an antibody fragment.

43. (New) The complex of claim 27, wherein the protein comprises a polyclonal antibody or a monoclonal antibody.

44. (New) The complex of claim 27, wherein the protein comprises at least one antibody fragment selected from the group consisting of $F(ab')_2$, Fab' and Fabc'.

45. (New) The complex of claim 27, wherein the protein comprises a protein that binds to a sugar chain.

46. (New) The complex of claim 27, wherein the protein comprises a protein that binds to hyaluronic acid.

47. (New) The complex of claim 27, wherein the protein comprises a protein that binds to biotin.

48. (New) The complex of Claim 27 wherein the protein comprises avidin or streptavidin.

49. (New) ~~A product comprising the~~ complex of Claim 27.

50. (New) An immunoassay kit comprising the complex of Claim 27.

51. (New) The immunoassay kit of Claim 50 ~~that it a kit~~ wherein said kit is for immunohistostaining or enzyme immunoassay, or both.

52. (New) ~~A method for making the carrier-enzyme-protein complex of~~ Claim 27 comprising:

contacting a carrier, an enzyme and a protein, wherein said protein binds to at least one substance selected from the group consisting of an antigen, an antibody, an antibody fragment, a sugar chain, hyaluronic acid and biotin, under conditions suitable for attachment of the carrier directly to the enzyme and suitable for attachment of the protein directly to the enzyme and

recovering or isolating a complex of carrier-enzyme-protein.

~~53. (New) A method of making a product comprising incorporating the carrier-enzyme-protein complex of Claim 27 into said product.~~ 25.

54. (New) A method for detecting a substance comprising:

contacting the carrier-enzyme-protein complex of Claim 27 with a sample suspected of containing a substance that binds to the protein in said complex, and

determining the amount of binding.

55. (New) The method of Claim 54, wherein said carrier-enzyme-protein complex is contacted with a tissue sample under conditions suitable for immunohistostaining.

56. (New) The method of Claim 54, wherein said carrier-enzyme-protein complex is contacted with a sample under conditions suitable for an enzyme immunoassay.